PATENT COOPERATION TREATY



From the INTERNATIONAL BUREAU

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NOTIFICATION OF TRANSMITTAL
OF COPIES OF TRANSLATION
OF THE INTERNATIONAL PRELIMINARY REPORT
ON PATENTABILITY
(CHAPTER I OR CHAPTER II
OF THE PATENT COOPERATION TREATY)
(PCT Rule 72.2)

To:

FUJIMOTO, Eisuke c/o Fujimoto Patent & Law Office, Room 317, Sanno Grand Building 3F.

14-2, Nagata-cho 2-chome Chiyoda-ku, Tokyo 100-0014 JAPON 受信 05.8.29 藤本特許法律 事務所

Date of mailing (day/month/year) 25 August 2005 (25.08.2005)

Applicant's or agent's file reference FWA3-26

International application No. PCT/JP2003/017056

IMPORTANT NOTIFICATION

International filing date (day/month/year)
26 December 2003 (26.12.2003)

Applicant

BUSSAN NANOTECH RESEARCH INSTITUTE INC. et al

1. Transmittal of the translation to the applicant.

The International Bureau transmits herewith a copy of the English translation made by the International Bureau of the international preliminary examination report established by the International Preliminary Examining Authority.

2. Transmittal of the copy of the translation to the elected Offices.

The International Bureau notifies the applicant that copies of that translation have been transmitted to the following elected Offices requiring such translation:

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3. Reminder regarding translation into (one of) the official language(s) of the elected Office(s).

The applicant is reminded that, where a translation of the international application must be furnished to an elected Office, that translation must contain a translation of any annexes to the international preliminary examination report.

It is the applicant's responsibility to prepare and furnish such translation directly to each elected Office concerned (Rule 74.1). See Volume II of the PCT Applicant's Guide for further details.

The International Bureau of WIPO 34, chemin des Colombettes 1211 Geneva 20, Switzerland

Authorized officer

Masashi Honda

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INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY

(Chapter II of the Patent Cooperation Treaty)

(PCT Article 36 and Rule 70)

Applicant's or agent's file reference FWA3-26	FOR FURTHER ACTION		See Form PCT/IPEA/416	
nternational application No. PCT/JP2003/017056	International filing date (a 26 December 2003		Priority date (day/month/year) 27 December 2002 (27.12.2002)	
nternational Patent Classification (IPC) or a C01B 31/02	national classification and I	PC		
Applicant BUSSAI	N NANOTECH RESEA	ARCH INSTIT	UTE INC.	
This report is the international prel Authority under Article 35 and tran	iminary examination report, nsmitted to the applicant acc	established by thi ording to Article 3	s International Preliminary Examining 66.	
2. This REPORT consists of a total o	f sheets, in	cluding this cover	sheet.	
3. This report is also accompanied by	ANNEXES, comprising:			
a. (sent to the applicant an	nd to the International Bured	au) a total of	sheets, as follows:	
and/or sheets co	ontaining rectifications authors. Instructions).	orized by this Auti	been amended and are the basis of this report hority (see Rule 70.16 and Section 607 of the	
beyond the disc	closure in the international a	application as filed	ity considers contain an amendment that goes it, as indicated in item 4 of Box No. I and the	
	indicated in the Suppleme		type and number of electronic carrier(s)) ing and/or tables related thereto, in computer to Sequence Listing (see Section 802 of the	
4. This report contains indications re	elating to the following item	as:		
Box No. I Basis of the	e report			
Box No. II Priority				
Box No. III Non-establ	ishment of opinion with reg	ard to novelty, inv	entive step and industrial applicability	
	ity of invention			
Box No. V Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement				
	cuments cited			
Box No. VII Certain de	fects in the international app	olication		
Box No. VIII Certain ob	servations on the internation	nal application		
Date of submission of the demand		Date of completion	on of this report	
26 July 2004 (26.0	7.2004)	15	September 2004 (15.09.2004)	
Name and mailing address of the IPEA	/JP	Authorized offic	er	
		Telephone No.		



INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY

Intel Intel

Box No.	ī	Bas	is of the report
l. With r	vise i	indica	the language, this report is based on the international application in the language in which it was filed, unless ated under this item.
	Thi whi	s repo	ort is based on translations from the original language into the following language, language of a translation furnished for the purpose of:
		inte	ernational search (under Rules 12.3 and 23.1(b))
			blication of the international application (under Rule 12.4)
	F		ernational preliminary examination (under Rules 55.2 and/or 55.3)
	L	,	
furnis	shed ire ni	to the ot ani	o the elements of the international application, this report is based on (replacement sheets which have been e receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" nexed to this report):
\boxtimes	The	inter	rnational application as originally filed/furnished
	the	descr	ription: , as originally filed/furnished
	pag	es	
	pag	-	received by this Authority on
l	pag	ges*	received by this Authority on
	the	clain	ns:
	pag	ges	, as originally filed/furnished
<u> </u>	pag	ges*	, as amended (together with any statement) under Article 19
1	pa	ges*	received by this Authority on
1	pa	ges*	received by this Authority on
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-		ges	, as originally filed/furnished
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	-	ges*	received by this Authority on
1	•	_	ence listing and/or any related table(s) - see Supplemental Box Relating to Sequence Listing.
	a	seque	ence fishing and/or any related table(s) a see supplemental 2011 Total 2011
i	_		
3.	T	he an	nendments have resulted in the cancellation of:
	٢	٦,	the description, pages
1	Ī		the claims, Nos.
l	Ĺ	=	the drawings, sheets/figs
1	L r		The state of the s
1	Ļ		the sequence listing (specify):
	l	;	any table(s) related to sequence listing (specify):
4.	_ n	nade, Rule	report has been established as if (some of) the amendments annexed to this report and listed below had not been since they have been considered to go beyond the disclosure as filed, as indicated in the Supplemental Box 70.2(c)). the description, pages the claims, Nos
1			the drawings, sheets/figs
		$\overline{\sqcap}$	the sequence listing (specify):
		Ħ	any table(s) related to sequence listing (specify):
		لب	
	- • .	,	plies, some or all of those sheets may be marked "superseded."
* ^{If}	iteni	4 ар	pites, some or an of mose should may a second may a secon

INTERNATIONAL PRELIMINARY EXAMINATION REPORT

Interr application No.
PCT/JP 03/17056

YES

NO

1-18

Reasoned statement under Ar citations and explanations sup	ticle 35(2) with regard to novelty, poorting such statement	inventive step or industrial appli	eability;
Statement			
Novelty (N)	Claims	1-18	YES
	Claims		NO
	Claims	1-18	YES
Inventive step (IS)	Claims		NO

Claims

Claims

Citations and explanations

Industrial applicability (IA)

The inventions set forth in claims 1 to 18 are not disclosed in any of the documents cited in the international search report, and thus, are novel and involve an inventive step. In particular, none of the documents discloses a process wherein an organometallic compound that will serve as a catalyst is broken down through pyrolysis and dissolved into an organic solvent, the solution thereby obtained is nebulized, and single-walled nanotubes are formed through vapor-phase synthesis.

特節協力条約

PCT

特許性に関する国際予備報告(特許協力条約第二章)

REC'D **0 7 OCT 2004**WIPO PCT

電話番号 03-3581-1101 内線 3416

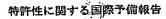
(法第12条、法施行規則第56条) [PCT36条及びPCT規則70]

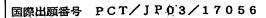
出願人又は代理人 の書類記号 FWA3-26	今後の手続きについては、 	様式PCT/I	PEA/416を参照	すること	- •
国際出願番号 PCT/JP03/17056	国際出願日 (日.月.年) 26.12.	2003	優先日 (日.月.年) 27.1	2. 20	002
国際特許分類 (IPC) Int.Cl'	C01B31/02				
出願人(氏名又は名称) 株式会社物産ナ	ノテク研究所				
1. この報告書は、PCT35条に基づ 法施行規則第57条 (PCT36条) 2. この国際予備審査報告は、この表紙	の規定に従い送付する。	•		-	
3. この報告には次の附属物件も添付さ a 開ス書類は全部で	れている。 ぺージである。				
価正されて、この報告の基 囲及び/又は図面の用紙(礎とされた及び/又はこの PCT規則70.16及び実施約	国際予備審査機 3則第607号参	関が認めた訂正を含む明 ○照) ・	細傷、	請求の範
第 I 欄 4 . 及び補充欄に示 国際予備審査機関が認定し	したように、出願時におけ た差替え用紙	る国際出願の開	示の範囲を超えた補正を	:含むも	のとこの
b 電子媒体は全部で 配列表に関する補充欄に示す ブルを含む。(実施細則第8	ように、コンピュータ読み 0 2 号参照)	取り可能な形式	(電子媒体の種 による配列表又は配列ま	類、数を ₹に関連・	ナるテー
4. この国際予備審査報告は、次の内容	を含む。				
 ※ 第 I 欄 国際予備審査 第 I 欄 優先権 第 近欄 新規性、進歩付 第 IV欄 発明の単一性 ※ 第 V欄 PCT35条 	性又は産業上の利用可能性(の欠如		•	見解、そ	れを裏付
けるための文	文献 備		•		
	· · · · · · · · · · · · · · · · · · ·				
国際予備審査の請求書を受理した日 26.07.2004		終予備審査報告を 1	作成した日 5.09.2004 		
名称及びあて先 日本国特許庁(IPEA/JI		F庁審査官(権限 :		4 G	9278
郵便番号100-8915 東京都千代田区段が関三丁目4		宮澤 7	可之		

特許性に関する国際予備報告

国際出願番号 PCT/JP03/17056

第1欄	報告の基礎			:
1. Za	国際予備審査報告は、	・・・・・・・・・・・・・・・・・・・・・・・・・・・・・・・・・・・・	、国際出願の官語を基礎。	とした。
	それは、次の目的で提] PCT規則12.3及] PCT規則12.4に] PCT規則55.2又	は55.3にいう国際予備審査	5 .	' に基づく命令に応答するために提出され
2. この た 差 替え	と用紙は、この報告に	はいて「出願時」とし、この	報告に添付していない。)
×	出願時の国際出願書	A		·
	明細 書 第 第 第	ページ、 ページ*、 ページ*、		付けで国際予備審査機関が受理したもの 付けで国際予備審査機関が受理したもの
	請求の範囲 第 第 第 第 第 第		出願時に提出されたもの PCT19条の規定に基	
	図面 第 第 第 第 配列表又は関連する 配列表に関する	ページ/図*、 ページ/図*、		付けで国際予備審査機関が受理したもの 付けで国際予備審査機関が受理したもの
3.		書類が削除された。第	ナること)	ページ 項 ページ/図
4.	えてされたものと器 明細書 請求の範囲 図面 配列表(具体的	に示したように、この報告に められるので、その補正がさ 第 第 第 5 第 5 5 5 7 6 7 7 8 7 8 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9	されなかったものとして作	・た補正が出願時における開示の範囲を超 F成した。 (PCT規則70.2(c)) ページ 項 ページ/図
* 4.	に該当する場合、そ	・ の用紙に"superseded"と氰	こ入されることがある。 '	·





第V欄 新規性、進歩性又は産業上 それを裏付ける文献及び町	の利用可能性についての法第12条(PCT35条(2))に定め 明	る見解、
1. 見解	,	
新規性 (N)	請求の範囲 <u>1-18</u> 請求の範囲	有 無
進歩性 (IS)	請求の範囲 <u>1-18</u> 請求の範囲	
産業上の利用可能性(IA)	請求の範囲 <u>1-18</u> 請求の範囲	

2. 文献及び説明 (PCT規則70.7)

請求の範囲1~18に係る発明は、国際調査報告で引用された何れの文献にも開示されておらず、新規性、進歩性を有する。特に、加熱分解して触媒となる有機金属化合物を有機溶媒に溶解し、得られた溶液を噴霧して気相合成により単層ナノチューブを形成することは、何れの文献にも開示されていない。